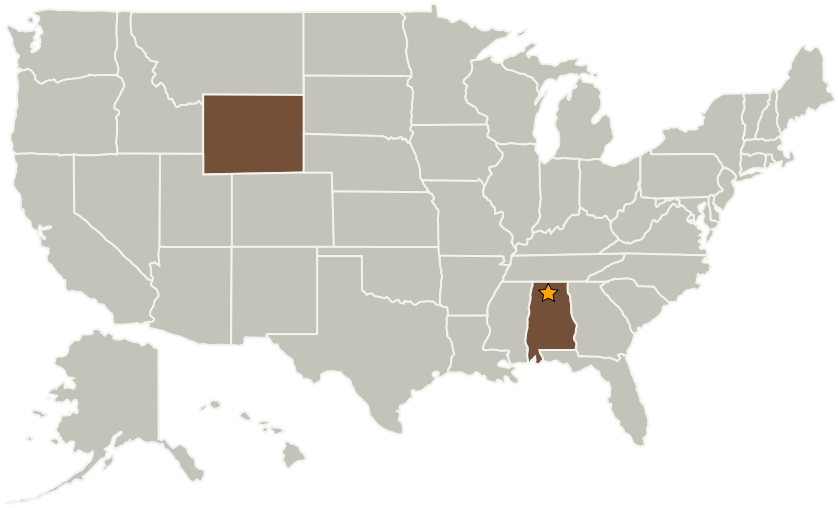
Low-Mass VOST Valve, Phase I

Completed Technology Project (2004 - 2004)

Project Introduction

A cylindrical, low-mass, high-efficiency, leak-proof cryogenic valve will be designed using composites and exotic metals. Based upon cryogenically-proven Venturi Off-Set Technology (VOST) the valve has no stem-actuator, few moving parts, and an overall cylindrical shape. The valve geometry will help reduce launch vehicle complexity and facilitate assembly and test. Reliability and safety and will be enhanced due to the inherent simplicity and leak-proof design of the VOST valve.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
★Marshall Space Flight Center(MSFC)	Lead Organization	NASA Center	Huntsville, Alabama
Big Horn Valve, Inc.	Supporting Organization	Industry	Sheridan, Wyoming

Primary U.S. Work Locations	
Alabama	Wyoming

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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Marshall Space Flight Center (MSFC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

Zachary A Gray

Technology Areas

Primary:

- TX01 Propulsion Systems
  - TX01.1 Chemical Space Propulsion
    - TX01.1.1 Integrated Systems and Ancillary Technologies